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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,796	06/19/2001	Zine-Eddine Boutaghou	169.12-0496	4390

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EXAMINER

MILLER, BRIAN E

ART UNIT PAPER NUMBER

2652

*13*

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/884,796

Applicant(s)

BOUTAGHOU ET AL.

Examiner

Brian E. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-7 and 9-26 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Claims 3-26 are now pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. The indicated allowability of claims 3-7, 15-16 is withdrawn in view of the newly discovered reference(s) to Lille (US 6,587,314). Rejections based on the newly cited reference(s) follow.

#### *Claim Objections*

2. Claim 6 is objected to because of the following informality: claim 6, the word "basecoat" should be inserted appropriately. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 3-4, 9-10, 13, 15-17, 19-20, 22-23, 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Lille (US 6,587,314). With respect to claims 3, 9 & 19, Lille discloses an

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air bearing slider, as primarily shown in FIGs. 2 & 3, including: a transducer 350 for communicating with a disc 118A; a composite wafer slider 300 with a front portion 358 composed of a first material, e.g., TiC, and a rear portion 354 composed of a second material, i.e., Si, different from the first material; the slider body having an air bearing surface 374 defined on the disc opposing face of the slider body, where the air bearing surface comprises the front portion and the rear portion (see col. 5, lines 45-47); a transducer basecoat portion 352 attached to the rear portion of the slider body containing the transducer 350; (as per claims 15 & 25) wherein the interface between the first and second materials comprises a single latitudinal plane with respect to the slider body which is perpendicular to the air bearing surface; (as per claims 4, 13 & 20) wherein the thickness of the first material is "as much as 15 times" a thickness of the second material; (as per claims 10 & 23) wherein the lapping durability of the first material is greater than the second material; (as per claims 16 & 26) wherein the latitudinal plane separates the front portion from the rear, and the front portion is composed entirely of the first material and the rear portion is composed entirely of the second material.

5. Claims 19-20, 23-26 rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art (AAPA), i.e., FIGs. 2A-2B. The AAPA shows a composite slider body, having a front portion 42 composed of a first material, e.g., AlTiC, a rear portion 44 composed of a second material, e.g., Al<sub>2</sub>O<sub>3</sub>, different from the first material; an air bearing surface which comprises a leading ABS portion 40 formed in the front body portion; a trailing ABS portion formed in the rear portion, i.e., which includes the ABS portion on the center of the rear pad of which the basecoat 46 forms; (as per claim 20) wherein the thickness of the first material is "as much as 15 times" a thickness of the second material; (as per claim 23) wherein the lapping

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durability of the first material is greater than the second material; (as per claims 25-26) wherein a single latitudinal plane separates the front portion from the rear, and the front portion is composed entirely of the first material and the rear portion is composed entirely of the second material.

***Claim Rejections - 35 USC § 103***

6. Claims 5-7, 11-12, 14, 18, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lille. For a description of Lille, see the rejection, supra. With respect to claims 11, 12, 18, Lille is expressly silent as to forming multiple sliders on one bar and subsequently cutting them to make individual sliders. Official Notice is taken that such process steps, are notoriously old and well known in this art, and providing such to Lille, would have been obvious to a skilled artisan (note also USP 5,559,051 which was incorporated by reference by Lille and includes the aforementioned steps). The motivation would have been: forming a plurality of sliders and transducers on a bar would have provided many slider assemblies in one step, thus reducing manufacturing time and increasing consistency throughout the samples, which method steps were conventionally used in this art.

With respect to the transducer portion including the second material, e.g., in this case Si, as it was well known for insulating magnetic heads, SiO<sub>2</sub>, which includes Si, would have been readily utilized in the transducer basecoat portion (see FIG. 2). Official Notice is taken that SiO<sub>2</sub> was a notoriously old and well known insulating layer in magnetic heads. The motivation would have been: SiO<sub>2</sub> being a well known insulating material provides proper insulation for the coil(s) and/or between pole layers as was conventionally known.

***Allowable Subject Matter***

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments with respect to claims 9-14, 17-18 have been considered but are moot in view of the new ground(s) of rejection.

A...It is noted by the Examiner that new claims 19-20, 23-26 are encompassed by the AIPA, as they do not include all of the limitations as recited in at least claim 3.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (703) 308-2850. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "B. E. Miller", is positioned above the printed name and title.

**Brian E. Miller**  
**Primary Examiner**  
**Art Unit 2652**

Bem  
April 21, 2004